CLAIMS

What is claimed and desired to be secured by Letters Patent is as follows:

A threadform for a first medical implant threadedly receivable in a second medical implant wherein the first implant has a direction of advancement along an axis of rotation relative to the second implant; said threadform comprising:

- a) a leading surface that has an inner edge and an outer edge;
- b) a trailing surface that has an inner edge and an outer edge; and wherein
- c) intersections of a plane passing through said axis of rotation with both said leading surface and said trailing surface slope rearwardly relative to the direction of advancement from the respective inner edges to the outer edges thereof.
- 2. The threadform according to Claim 1 wherein:
 - a) the intersection of said trailing surface

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with a plane passing through said axis of notation is at a first angle of from about 1° to about 45° relative to a line perpendicular to said axis of rotation.

- 3. The threadform according to Claim 2 wherein:
 - a) said tirst angle is between about 5° and 20°.
- 4. The threadform according to Claim 2 wherein:
 - a) said first angle is between about 7° and 15°.
- 5. The threadform according to claim 2 wherein:
 - a) the intersection of said leading surface with a plane passing through said axis of rotation is at a second angle of from about 30° to about 75° relative to a line perpendicular to said axis of rotation.
- 6. The threadform according to Claim 2 wherein:
 - a) said second angle is in the range from 40° to 50°.

- 7. The threadform according to Claim 1 wherein:a) said trailing and leading surfaces are nonparallel.
- 8. The threadform according to Claim 1 in combination with the first implant wherein said first implant has a cylindrical shaped body about which said threadform is positioned.
- 9. The combination according to Claim 8 wherein:
 - a) said threadform is helically wound about said cylindrical shaped body.
- 10. The combination according to Claim 9 wherein:
 - a) said threadform is continuous.

The combination according to Claim 1 wherein:

- a) said threadform is in a helical pattern, but is discontinuous.
- 12. The combination according to Claim 8 further including:
 - a) the second implant having a receiving thread

on an inner surface thereof; said receiving thread being sized and shaped to matingly and threadably receive said threadform.

A medical device comprising:

a) a first implant having a head with a channel sized and shaped to receive a rod-like member and a pair of spaced arms on opposite sides of said channel;

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b) a second closure implant for closing between said arms; said closure implant having an axis of rotation and a thread on an outer surface thereof; said thread being in a helical pattern on said closure implant and having a leading surface and a trailing surface; said leading surface having inner and outer edges and said trailing surface having inner and outer edges; intersections of both said leading surface and said trailing surface with a plane passing through said axis of rotation slope from respective inner to outer edges rearwardly with respect to a direction of advancement of said closure

implant in closing said first implant; and

c) each of said arms include a threadform on inner facing surfaces thereof sized and shaped to matingly and threadedly receive the thread of said closure implant.

14. The device of Claim 13 wherein:

a) the inner and outer edges of both said
leading surface and said trailing surfaces
are each spaced from the axis of rotation at
substantially the same radius over
substantially the entire length of the
thread.

15. The device of Claim 13 wherein:

a) said inner edges of both said leading and trailing surfaces are substantially spaced and said outer edges of both said leading and trailing surfaces are in close proximity to each other throughout the length of the thread such that the thread is generally triangular in cross-section.

- 16. The device according to Claim 15 wherein:
 - a) said cross-section has the general shape of an obtuse triangle.

In a thread having an axis of rotation with a leading surface and a trailing surface relative to advancement along the axis of rotation; the improvement comprising:

- a) said trailing surface having an inner and an outer edge; said trailing surface sloping rearwardly from the inner edge to the outer edge thereof; and said inner edge having a generally constant radius over an entire length of said thread.
- 18. In a medical implant having a cylindrical shaped outer surface with a thread wound in a helical pattern about said outer surface and wherein said thread has a leading surface and a trailing surface relative to advancement of the implant along an axis of rotation; the improvement comprising:
 - a) said trailing surface having an inner and an

outer edge; any intersection of said trailing surface with a plane passing through the axis of rotation slopes rearwardly from an inner radius to an outer radius of said trailing surface over substantially the entire length of said trailing surface.

- 19. In a thread having a leading surface and a trailing surface relative to advancement about an axis of rotation; the improvement comprising:
 - having respective inner and outer edges; said trailing surface sloping rearwardly from the inner edge to the outer edge thereof; said trailing surface and leading surface inner edges being spaced and said trailing surface and leading surface and leading surface outer edges being in close proximity to one another, such that said thread is generally triangular in cross-section.
- 20. The implant according to Claim 19 wherein:
 - a) said cross-section is generally in the shape

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of an obtuse triangle.

21. In a medical implant having a cylindrical shaped outer surface with a thread helically wound about said outer surface and wherein said thread has a leading surface and a trailing surface relative to advancement of the implant along an axis of rotation and further wherein both said trailing surface and said leading surface have respective inner and outer edges; the improvement comprising:

- a) said leading and trailing surfaces both sloping rearwardly from respective inner to outer edges thereof; said trailing surface and leading surface inner edges being spaced and said trailing surface and leading surface outer edges being in close proximity to each other over substantially the entire length of the thread such that the thread has a substantially triangular shaped cross section.
- 22. In a thread having a leading surface and a trailing surface relative to advancement about an

axis of rotation; the improvement comprising wherein:

- both of the intersections of said leading surface and said trailing surface with a plane passing through the axis of rotation slope rearwardly from a radially inner edge to outer edge thereof; and
- b) a first angle between the leading surface intersection and a line perpendicular to the axis of rotation is substantially greater than a second angle between the trailing surface intersection and a line perpendicular to the axis of rotation.
- 23. The thread according to Claim 22 wherein:
 - a) said second angle is between about 1° and 45°.
- 24. The thread according to Claim 23 wherein:
 - a) said first angle is greater than 30°.
- 25. The thread according to Chaim 22 wherein:
 - a) said first angle is in the range from about 30° to 45° and said second angle is in the

range from about 5° to 20°.

In a thread having a leading surface and a trailing surface relative to advancement about an axis of rotation; the improvement comprising:

- a) said leading surface and said trailing surface being non-parallel; and
- b) an intersection of a plane with sail trailing surface slopes rearwardly from an inner edge to an outer edge of said trailing surface.

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